November 30, 2004

Secretary
Federal Communications Commission
Washington, DC 20554

Via Electronic Filing

RE: ET Docket No. 04- 186, ET Docket 02-380,
NPRM: "Unlicensed Operation in the TV Broadcast Bands"

Ladies and Gentlemen:

The Front Range Educational Media Corporation (dba Colorado Public Television) is the licensee of KBDI, Broomfield, CO and TV translators K11QJ, Boulder, CO and K32EO, Colorado Springs & Pueblo, CO. KBDI is a secondary PBS affiliate[1] and as such carries only a limited amount of PBS programming. In contrast to the primary PBS affiliates in the area it produces a significant amount of public affairs and other locally oriented programming.

Because of such unique locally oriented programming, it is in the public interest that no interference be created that would reduce the useful coverage area of KBDI or its translators.

While we are concerned whether the proposed mechanism of databases of vacant channels controlling the "unlicensed radiators" is really practical in everyday use, our greatest concern is that the definitions of protected areas for both primary stations and translators is woefully inadequate.

KBDI channel 12 would be protected only to its Grade B contour (56 dBµ), and translator K32EO would be protected only to its 74 dBµ contour. We believe home viewers in the fringe areas are watching at locations where the signal strength is well below these values by using high gain outside antennas. However, there can be no argument that our signals will be watchable at locations where the actual signal strength is at least the full service Grade B value.

Plots of the Grade B contour of KBDI and the 74 dBµ contour of translator K32EO are attached along with the OET Bulleting 69 Longley-Rice predicted coverage based on the full service Grade B values for the respective frequency ranges.

[1]KRMA, Denver and KTSC, Pueblo, CO are full time PBS affiliates.

It is well known that the coverage contours based on the FCC F50/50 curves are not accurate predictors of the coverage of a station in practice. The contours are based only on the terrain from 2 to 10 miles and ignore any terrain features at lesser or greater distances.

We are anxiously awaiting the acceptance of digital television by the public. Much of our public affairs and educational programming is not bandwidth intensive. Accordingly we expect to be able to significantly expand these services when digital television is the norm.

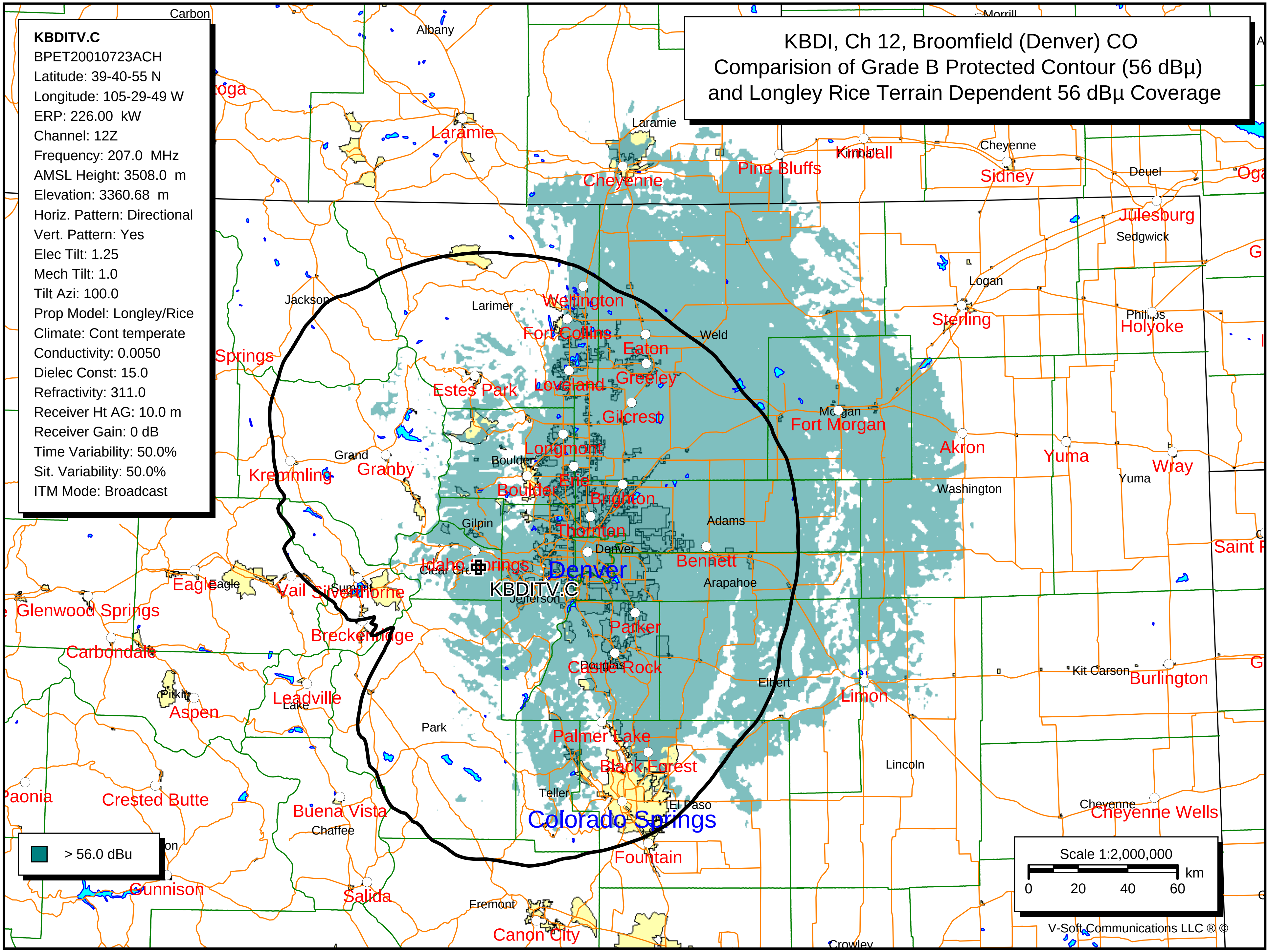
We are concerned that anything that creates doubts in the minds of the public will inhibit the ultimate transition to digital. It is hard to see how the operation of "unlicensed radiators," especially in rural areas where signals are weak, can fail to cause unexplained interference which in turn will lead the public to conclude that digital TV does not work reliably.

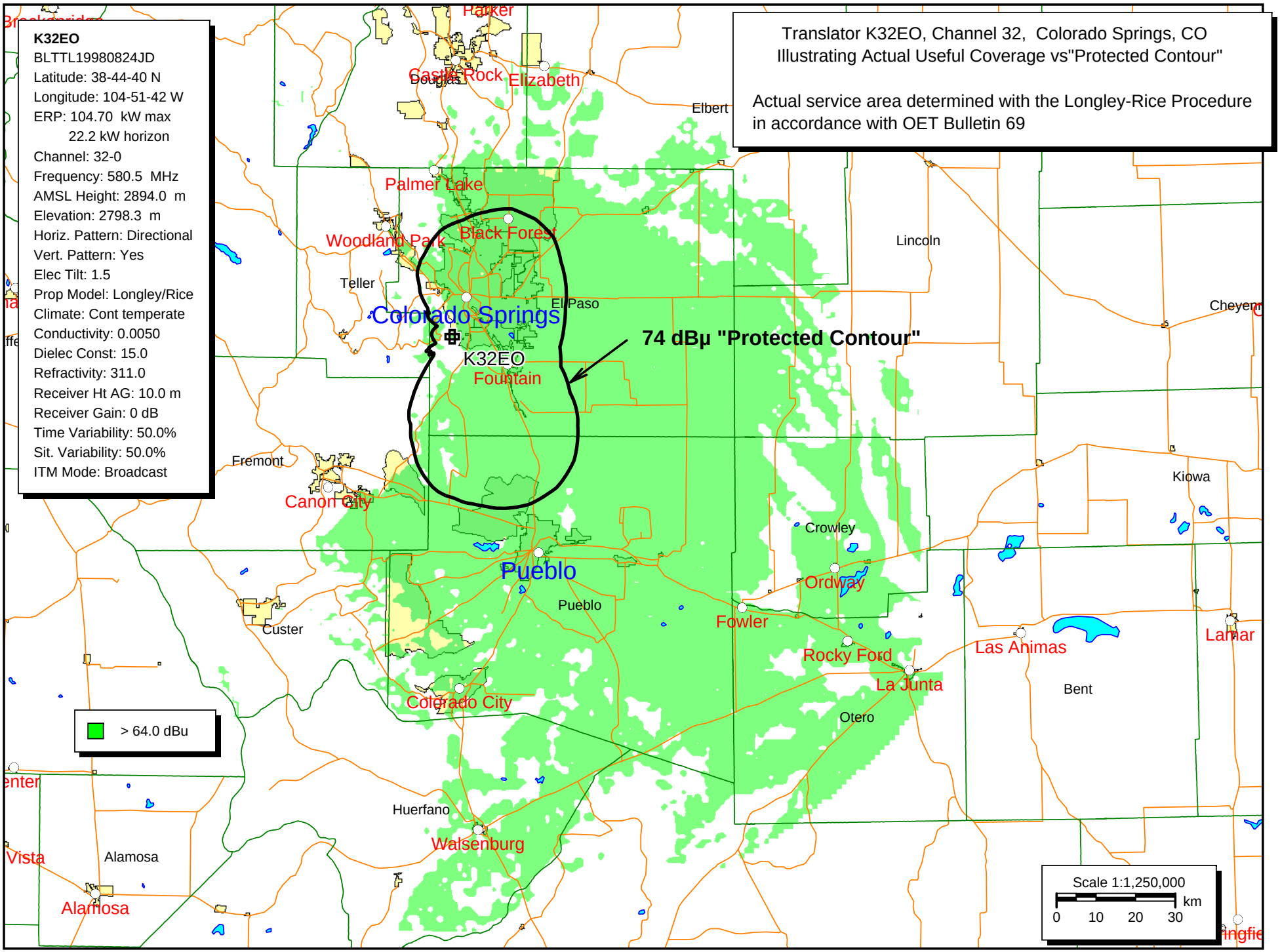
Conclusion

The public interest would be better served by postponing the proposed authorization of "Unlicensed Radiators" until digital television is firmly established. In any event broadcast stations, both full service and translators, should be protected out to the limit of their useful field strength value. The Commission should undertake to determine the actual limit of usability for the three TV bands, but it is certainly lower than the Grade B value for each.

Respectfully submitted,

Willard Rowland
President


KBDI, Ch 12, Broomfield (Denver) CO
Comparision of Grade B Protected Contour (56 dBµ)
and Longley Rice Terrain Dependent 56 dBµ Coverage
KBDITV.C
BPET20010723ACH
Latitude: 39-40-55 N
Longitude: 105-29-49 W
ERP: 226.00 kW
Channel: 12Z
Frequency: 207.0 MHz
AMSL Height: 3508.0 m
Elevation: 3360.68 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 1.25
Mech Tilt: 1.0
Tilt Azi: 100.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
> 56.0 dBu
Scale 1:2,000,000
km
0 20 40 60
V-Soft Communications LLC ® ©
KBDITV.C
Denver
Colorado Springs
Carbon
Albany
Laramie
Cheyenne
Pine Bluffs
Kimball
Sidney
Deuel
Julesburg
Sedgwick
Logan
Sterling
Phillips
Holyoke
Jackson
Larimer
Wellington
Fort Collins
Eaton
Weld
Greeley
Estes Park
Loveland
Gilcrest
Morgan
Fort Morgan
Akron
Yuma
Wray
Washington
Grand
Granby
Kremmling
Boulder
Longmont
Erie
Brighton
Gilpin
Thornton
Adams
Denver
Bennett
Arapahoe
Idaho Springs
Eagle
Vail
Silverthorne
Summit
Jefferson
Glenwood Springs
Breckenridge
Carbondale
Parker
Douglas
Castle Rock
Elbert
Kit Carson
Burlington
Limon
Leadville
Lake
Pitkin
Aspen
Park
Palmer Lake
Black Forest
Lincoln
Teller
El Paso
Cheyenne
Cheyenne Wells
Paonia
Crested Butte
Buena Vista
Chaffee
Fountain
Gunnison
Salida
Fremont
Canon City
Crowley
Springs
Saint F


K32EO
BLTTL19980824JD
Latitude: 38-44-40 N
Longitude: 104-51-42 W
ERP: 104.70 kW max
22.2 kW horizon
Channel: 32-0
Frequency: 580.5 MHz
AMSL Height: 2894.0 m
Elevation: 2798.3 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 1.5
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
Translator K32EO, Channel 32, Colorado Springs, CO
Illustrating Actual Useful Coverage vs"Protected Contour"
Actual service area determined with the Longley-Rice Procedure
in accordance with OET Bulletin 69
74 dBµ "Protected Contour"
Colorado Springs
K32EO
Fountain
Pueblo
Parker
Castle Rock
Elizabeth
Douglas
Elbert
Palmer Lake
Woodland Park
Black Forest
Teller
El Paso
Lincoln
Cheyenne
Fremont
Canon City
Custer
Crowley
Ordway
Pueblo
Fowler
Rocky Ford
La Junta
Las Animas
Bent
Kiowa
Lamar
Otero
Colorado City
Huerfano
Walsenburg
Alamosa
Vista
Alamosa
> 64.0 dBu
Scale 1:1,250,000
km
0 10 20 30